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COPPER TO ALUMINUM INTERLAYER INTERCONNECT
USING STUD AND VIA LINER

ABSTRACT OF THE DISCLOSURE

5 Tungsten studs of a size comparable to vias are
provided to integrate and interface between copper
and aluminum metallization layers in an integrated
circuit and/or package therefor by lining a via
opening, preferably with layers of tantalum nitride
and PVD tungsten as a barrier against the corrosive
effects of tungsten fluoride on copper. The reduced
size of the tungsten studs relative to known
interface structures allows wiring and connection
10 pads to be formed in a single aluminum layer,
improving performance and reducing process time and
cost.